pvdj
DEFINING MUSICAL DIRECTION

RotoMix

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User's Manual

This manual introduces you **step by step** to all **Rotomix**'s functions, from the simplest to the most complicated, without ever presuming that you are necessarily experts.

Even if you're already pro DJs, you'll nevertheless be able to find useful info, as well as some *tricks of the trade* on the use of this particular mixer.

The layout of the chapters will ensure that your initial reading is easier.

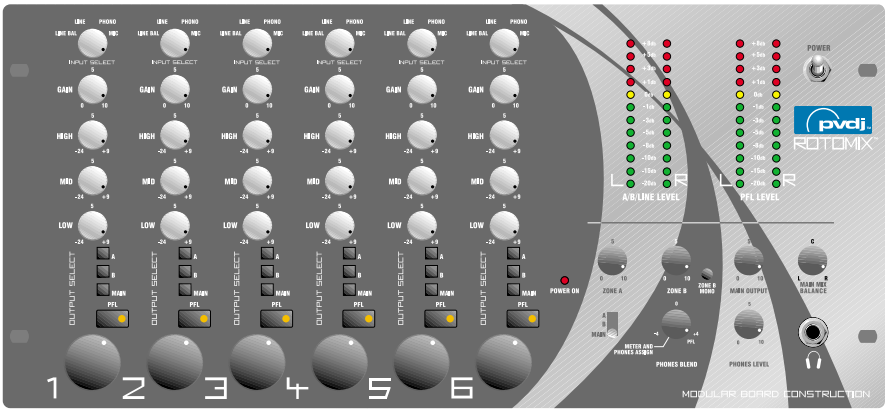
The **repetition** of some concepts in several parts of the manual and the indications of the **diagrams** will help you during later consultation, giving you immediately all the key info on the topics you're interested in, without having to continually jump from one chapter to another.

Lastly, the **black page indexing** differentiating the chapters, and **page numbering** (chapter.page) enable you to easily find the necessary topics.

Remember you can always check for any updates of this manual or other back-up publications on the Web site: **www.pvdj.com**

Introduction

Rotomix is the professional club installation DJ Mixer you've been waiting for: hi-end layout with no cross-fader, aluminium rotary knobs, improved preamp section for pure hi-fi performance, impeccable sound, functions instantly at your fingertips.



Rotomix is the successful result of a combination of technology and the experience of top pro **DJs** and **Sound Engineers**:

6 stereo channels fully configurable for every use: Phono, Line, balanced Line and Mic (with +48V phantom power supply for condenser Mics).
3-band EQ controls with *soft boost* and *frequency kill* effects on each channel.
DJ matrix with 24 input options on 6 channels assignable to a 3 "zone" structure - Zone A, Zone B, Main Output.
Triple stereo outputs (1 balanced - 2 unbalanced) for each "zone", to meet any connection needs.
Very high dynamics for handling volumes, sounds and equipment of the latest generation.
Modular construction, professional circuitry, selected component, rugged metal case, external professional power supply.

Rotomix is a complete console with numerous signal control features, but easy to use either in home set-ups or at on-stage gigs: with **Rotomix** you've got things under your complete control in any situation.

Rotomix is a little gem to be put at the service of your creativity.

Instructions and Installation

Connection to the main supply

The mixer is fitted with an external power supply. Before connecting it to the mains supply, make certain that the voltage available on the installation site is the same as that indicated on the power supply (max tolerance ±10%).

Switching on and off

Set the **POWER** switch (front panel) of the mixer to **OFF**. UP the power on light will be off. Connect the power supply's connector to the **POWER SUPPLY** socket on the rear panel of the mixer.
Connect the power supply to the mains power.
Set the **POWER** switch of the mixer to **ON**. Down the power light will be on. Switch the mixer on and off when the sound system is off: this will avoid signal peaks that could damage loudspeaker enclosure components.

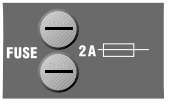
Preventing interference

Generally speaking, it's always best to avoid installation to close to radios, TV, etc. These units, in fact, are usually a source of interference. For the same reason, avoid using mobile phones in close proximity to the mixer.
Also make certain that the mixer is installed in locations free of strong interference of an industrial nature, strong RF interference and mains supply power failures.
Use audio cables of the recommended type (see Connection Cables appendix), and check their efficiency periodically.

Protection and maintenance

Avoid lengthy exposure of the mixer to strong vibrations, sources of high temperature, direct sunlight, particularly dusty environments or rain: this will help to prevent faulty operation, deterioration and electric shocks.
If the mixer remains unused for long periods, it should be protected from dust. Any dust that accumulates can be removed using a dry soft cloth or brush: DO NOT use alcohol, solvents or any kind of detergent.
For transport, use the original packaging or a flight-case.
No other maintenance is necessary.

Fuses replacement



In the event of fuse replacement: switch the mixer off, screw off the fuse holders located in the rear panel, replace burned fuses only with new 2A fuses having the same specs as the original ones.

In the event of breakdown

All user controls are external. In the event of a breakdown, do not open the unit, but contact the nearest **PVDJ Assistance Centre**.
More info can be found on the Web site: **www.pvdj.com**

1 - Getting Started

Starting immediately

Here's how to begin using your mixer quickly.
Remember you can find detailed explanations in later chapters.

First connections

Be sure the mixer is OFF (Power switch and led set to off)**.**

INPUTS: connect your turntables, CD players, etc. to the sockets of INPUTS SECTION on the Connector Panel.
You can connect up to four units to each channel simultaneously, proceeding as follows:

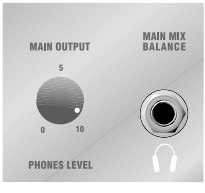
PHONO turntables
NB: remember to connect the ground wire to the **GND** pin.

LINE CD players, tape recorders, Mini-Disk or DAT or MP3 players, keyboards, samplers, processors and effects, mixers, computer audio cards, etc.

BAL LINE same as above, balanced.
N.B. these inputs are particularly suitable for pro equipment with balanced outputs.

MIC microphones.
MIC inputs are suitable for both dynamic and condenser microphones. In fact, you can supply condenser mics with +48V by using the respective **Phantom** buttons (button down - led on). ATTENTION: connecting a dynamic Mic, remember to verify the Phantom power is off (button up - led off).

OUTPUTS: connect the **L-R MAIN** outputs of the Connector Panel to the inputs of your sound system (power amplifiers, self-powered speaker systems, larger mixers, etc.). You can use balanced or unbalanced outputs, according to your sound system requirements.
NB: if necessary, you can refer to the **Connection Example Appendix** to find the set-up most suited to your requirements or your equipment.

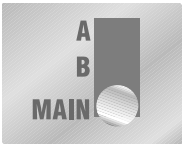


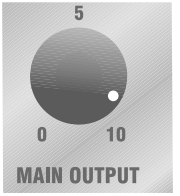
PHONES: connect your headphones to the headphone outputs on the Front Panel.
NB: check that your headphones have an impedance ≥32Ω

Selecting inputs

Up to four units can be connected simultaneously to each channel.
Use the **SELECTOR** knobs to choice the unit you want to listen through each channel.
N.B.: while getting started, it's advisable to avoid the use of Microphones.

Assigning channels to outputs

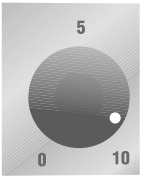




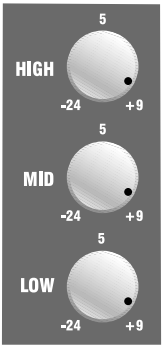
The signal of each channel can be routed up to three stereo outputs simultaneously: Zone A, Zone B, Main.
Set **VOLUME** control of the **MAIN OUTPUT** at medium levels.
Press the **MAIN** button (button down) to assign the channels you want to listen to the Main Output.

Adjusting input levels

To make most of the excellent dynamics of your **Rotomix**, first of all you must set the level of the input signals of each channel.
Just follow these simple instructions that will allow you to optimize the so-called sound/noise ratio, obtaining high-level distortion-free signals:



Firstly, set the **VOLUME** control of the required channel at medium levels.
NOTE: in this way (as well as setting the MAIN OUTPUT at medium levels) you'll avoid excessive volumes and possible damage to the sound system.



Set the channel's EQ **HIGH, MID and LOW** potentiometers in the centre position.
This enables the signal to keep its original tone.

Switch on the units, then the mixer, and lastly the sound system. Then feed music to the channel.

Using GAIN & PFL

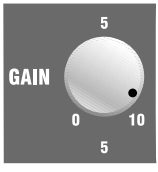
Now adjust the “gain”, i.e. the amplification of the input signal:

1

Press the channel’s **PFL** button (LED lit).
This enables the channel’s PFL, i.e. it’s possible to monitor the channel’s Pre-Fader signal in your **headphones** and on the **PFL VU Meter**.

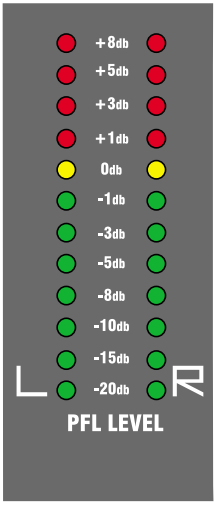
NB: the PFL signal is *taken* after the GAIN and EQ controls and before the VOLUME control.
In this way, the PFL function allows to monitor the channel’s signal in any circumstances, no matter what the position of the VOLUME knob.
For example, while you’re playing the signal on CH 1 out through the sound system, you can work on CH 3’s signal, adjusting the speed of the turntables, finding the right mixing point, preparing a particular EQ, setting the input gain, etc.

Use the **GAIN** potentiometer.
NB: turning the potentiometer completely clockwise, you’ll get maximum amplification, ideal for low-level signals, whereas by turning it fully counter clockwise you’ll get minimum amplification, suitable for high-level signals.



While using the Gain control, watch the **PFL VU Meter**’s LED ladders: to ensure a good sound/noise ratio, the level must be quite high, but the red LEDs must not light up continually.

Remember that turntables’ signal levels are very different from those of other units, so every time you change a channel’s sound source, e.g. passing from Phono to Line (SELECTOR knob), remember to check the gain and if necessary adjust it.

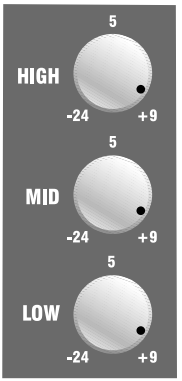


Once you’ve got the hang of this technique (the same for any type of mixer), you’ll always be able to get the best performance from your instruments and sound system.

Equalization

If necessary, you can alter the equalization, i.e. the tone of the track you're playing, boosting certain frequencies and cutting or eliminating others.
Turning the potentiometer completely clockwise, you'll get maximum boost of the selected frequency band; whereas by turning it fully counter clockwise you'll get the maximum cut of the band of frequencies selected. In the centre position the potentiometer has no effect (i.e. the band keeps its original tone).
Each band features the following range:

+9 dB ***soft boost* effect**
-24 dB ***frequency kill* effect**

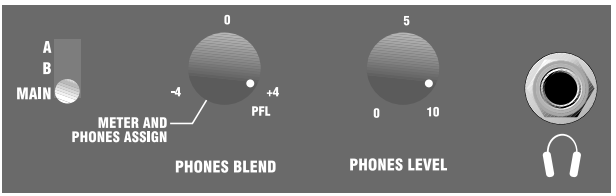


Use **HIGH** to make the sound more or less bright.
Use **MID** to make the sound softer, more *nasal*, punchier, etc.
Use **LOW** to get the *bottom end pumping* or to reduce the low frequency sounds.

Try out the effect of these controls. Just take care when turning the potentiometers clockwise, as the levels will rise.
Remember that the EQ controls don't only effect the timbre, but also the signal level, so when making consistent EQ changes, also check the **GAIN** setting.

Using Headphones

Set the **METER & PHONES ASSIGN** toggle at **MAIN**.
This enables: - the **A/B/MAIN LEVEL** VU Meter to display the MAIN signal.
- the **PHONES BLEND** knob to mix the **MAIN** and the **PFL** signals in your headphones.



Use the **PHONES BLEND** knob to adjust the proportion between the **MAIN** and the **PFL** signal levels in your headphones according to your needs.
Turning the potentiometer completely clockwise, you'll get only the **PFL** signal, whereas by turning it fully counter clockwise you'll get only the **MAIN** signal (or the Zone A or Zone B signal, if selected by the toggle).
In the intermediate positions you'll get intermediate proportions.
In the centre position you'll get both signals at their maximum level.

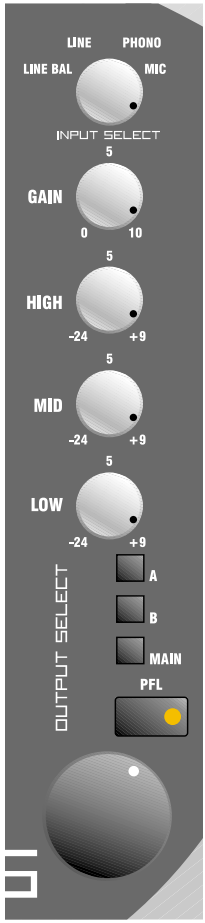
Use the **PHONES LEVEL** knob to control the overall **volume** of the **headphone outputs**.

2 - Input Channels

Rotomix is equipped with **6** stereo input **channels**.
Each of these channels has 4 inputs (3 stereo - 1 mono).
It's therefore possible to always have 4 units connected to each channel (e.g. a turntable, a CD player, a DJ processor machine and a microphone) and decide which to use as required.

In fact, you can connect up to **24 sound sources** to the mixer and mix up to 6 of them simultaneously, choosing between:

- 6 turntables
- 12 CD players, recorders, samplers, etc.
- 6 microphones.



All channels offer the same functions and the same possibilities for treating the sound:

4 inputs: Phono
Line
Balanced Line
Microphone

Pro Mic pre-amp section with dedicated Gain control (rear panel) and +48 V Phantom power supply for condenser microphones

Input Selector

Gain control

3-band EQ with *soft boost* and *frequency kill* action

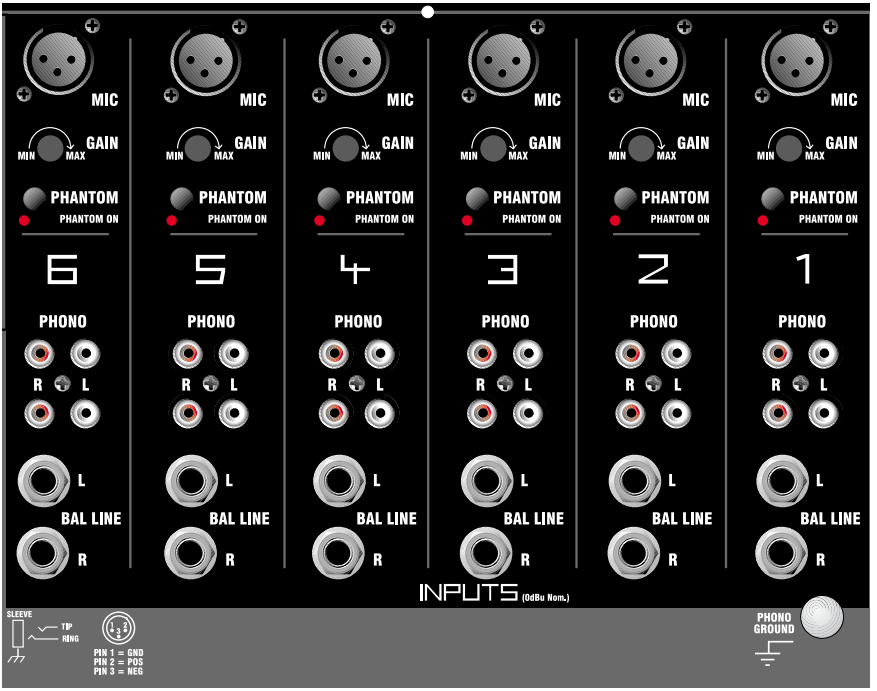
Zone A, Zone B, Main Outputs routing

PFL

Volume

INPUTS

The input sockets are on the rear panel of the mixer, indicated by the respective channel number: **1, 2, 3, 4, 5, 6**.



When connecting, proceed as follows:

PHONO turntables

N.B.: remember to connect the ground wire to the **GND** pin.

LINE CD players, tape recorders, Mini-Disk or DAT or MP3 players, keyboards, samplers, processors and effects, mixers, computer audio cards, etc.

BAL LINE same equipment as above indicated - particularly professional equipment with balanced outputs.

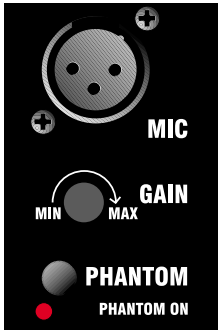
N.B.: these inputs are particularly useful wherever balanced connections are required - i.e. long distance connections. A balanced connection, in fact, let you avoid the interference and hum/buzz typical of unbalanced cables, especially long ones.

These inputs are also compatible with unbalanced cables, letting you make unbalanced connections; anyway, remember that balanced connections require balanced cables and connectors (see Appendix B - Connection Cables).

MIC microphones.
Each MIC input is suitable for both dynamic and condenser microphones.

MIC's GAIN
Each MIC input features a professional pre-amp section with a **dedicated Gain** control. In fact, the **Mic's Gain** allows you to set the microphone signal's level before the channel's Gain control.
Since the signal's level can be very different from microphone to microphone, and from microphones to other electronic devices, the **Mic's Gain** let you "normalize" the microphone signal's level, thus obtaining a level comparable to those of the other units connected to the same channel.
In this way, you'll be always able to change the source without having to adjust the channel's Gain continually.

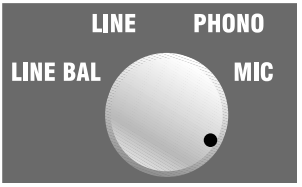
PHANTOM button & led
Each Mic input can supply **+48 V Phantom power**, enabled by the respective button (button down - led on).
NB: the Phantom power is used to power microphones with built-in condenser pre-amplifiers. In fact it's a D.C. (direct current) supply, which runs along the microphone cables to microphones (via pins 2-hot and 3-cold of the mixer's XLR-F connector). This system requires both conductors to have the same D.C. potential, so **it's indispensable that cables and connectors are balanced and in perfect condition.**



ATTENTION: Phantom power must be used carefully !
To avoid serious damage to your microphones, always observe the following points:
Be sure you are using exclusively balanced cables and balanced connectors in perfect condition (see Appendix B - Connection cables).
When connecting a dynamic microphone, remember to verify the Phantom power is OFF (button up - led off).

PHANTOM MASTER
On the rear panel you can also find a **Phantom Master** switch, to be used as master control of the **channels' Phantom** buttons. If no condenser microphones are included in your equipment, it's advisable you set this general control to **OFF** (button up), thus avoiding accidental activations on single channels.

INPUT SELECTOR



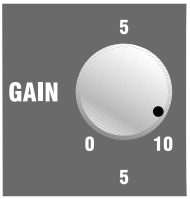
Allows to select the channel's input: Balanced Line, Line, Phono, Microphone.

Up to four units can be connected simultaneously to each channel.
Use the **SELECTOR** knobs to choice the unit you want to listen through the channel.

Important: this selection must be carried out correctly even if only one unit is connected; otherwise the signal will not be fed into the channel.

When using the selector, remember that turntable signal levels are very different from those of other equipment, so when switching from Phono to Line, remember to check and if necessary adjust input Gain.

GAIN



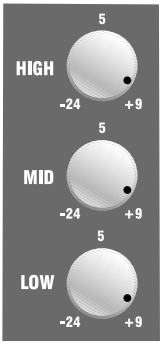
Controls the amplification of the signal fed into the channel. GAIN operates with continuous values, in ranges that vary according to the type of input selected:

BAL LINE	-20 dB ÷ +10 dB
LINE	-20 dB ÷ +10 dB
PHONO	-50 dB ÷ -20 dB
MIC	-55 dB ÷ -25 dB

Turning the potentiometer completely clockwise gives maximum gain, i.e. maximum amplification, usable with lower level signals (BAL LINE -20 dB; LINE -20 dB; PHONO -50 dB; MIC -55 dB);
on the other hand, turning the potentiometer completely counter clockwise gives minimum gain, i.e. minimum amplification, usable with signals with a higher level (BAL LINE +10 dB; LINE +10 dB; PHONO -20 dB; MIC -25 dB).

To ensure a good sound/noise ratio, i.e. distortion-free but "present":
Press the channel's **PFL** button (LED illuminated).
Adjust the **GAIN**, watching the **PFL VU meter**'s LED ladder: the level must be kept quite high, but making certain that the red LEDs don't remain continually illuminated.
Occasional illumination of the red LEDs is acceptable.

EQ



3-band Equalizer.
Allows to modify the sound's original tone.
By means of this section's controls, you can boost some frequencies and cut or eliminate others, modifying the sound's original tone remarkably.
Each band features the following range:

+9 dB ***soft boost* effect**
-24 dB ***frequency kill* effect**

In-depth knowledge of this powerful tool will allow you to obtain the sounds most suited to your requirements and your tastes.

Turning the potentiometers completely counter clockwise, the relative frequency bands undergo maximum attenuation: **-24 dB** (also called ***frequency kill* effect**); vice versa, by turning them completely clockwise, the relative frequency bands are subject to the maximum boost: **+9 dB** (also called ***soft boost* effect**);
in intermediate positions, the various frequency bands are cut or boosted by the relative intermediate values;
the potentiometers are centre-dented to facilitate finding the position in which the signal is not modified: **0 dB** (i.e. the band keeps its original tone).

HI

HIGH frequency control.
Has a **-24 dB ÷ +9 dB** shelving curve with a **10 kHz** cutoff frequency.
Use this potentiometer to make the sound more or less bright.

MID

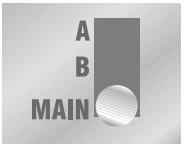
MID frequency control.
Has a **-24 dB ÷ +9 dB** peaking curve with a **900 Hz** centre frequency.
Use this potentiometer to control sound's most critical band, making it softer, more *nasal*, more punchy etc.

LO

LOW frequency control.
Has a **-24 dB ÷ +9 dB** shelving curve with a **70 Hz** cutoff frequency.
Use this potentiometer to give the sound more body or to cut the bottom end.

Try out the effect of these controls. Just take care when turning the potentiometers clockwise, as the levels will rise.
Remember that the equalization controls don't just effect the tone, but also the signal level, so when you make consistent changes to the equalization, check the **GAIN** setting too.

A - B - MAIN



These buttons allow to assign each channel's signal up to three stereo outputs simultaneously: **Zone A, Zone B, Main**.
In fact, the "3-zone" structure of your **Rotostar** let you set three completely separate signal routing, to be used according to your needs.
Examples:

Club & Disco		**Hotel**	
MAIN	- dance floor #1	MAIN	- background music for public address
Zone A	- dance floor #2	Zone A	- fitness area
Zone B	- rest area	Zone B	- service communications for personnel

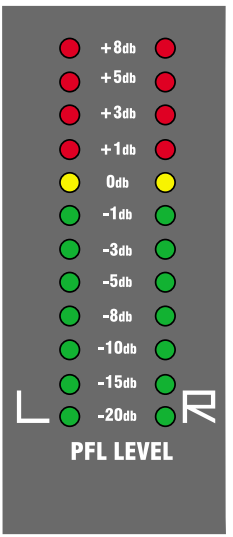
A channel can be assigned to outputs simply by pressing the respective buttons (buttons down).
You can set all the combinations you require.
The **A-B-MAIN** buttons are **Post-Fade**r, i.e. only affects the channel's output signal.
This means that:
PFL procedure can be carried out normally, no matter if assignment has been made or not.
when the VOLUME knob is *closed*, no signal is fed out, no matter what assignment has been made.
the buttons can also be used to *switch* the channel *on and off* very quickly without altering the position of the channel VOLUME control.

PFL

Pre-Fader Level.
Allows the channel's Pre-Fader signal to be monitored in your **headphones** and displayed on the **PFL VU Meter**.

The **PFL** signal is taken after the **GAIN** and **EQ** controls and before the **VOLUME** control of the channel. This means that the **PFL is unaffected by the settings of the VOLUME of the channel.**

The **PFL** status is indicated by a LED:
LED OFF : PFL disabled
LED ON : PFL enabled

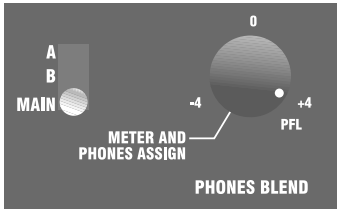


NB: if no PFL buttons are pressed, no signal is displayed.

In fact, for headphone **PFL** monitoring proceed as follows:

Use the **PHONES BLEND** knob to adjust the proportion between the signal set by the **METER & PHONES ASSIGN** toggle and the **PFL** signal levels.

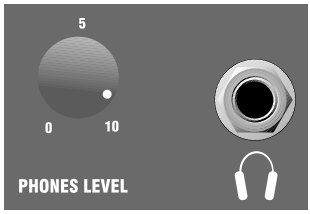
Turning the potentiometer completely clockwise, you'll get only the **PFL** signal, whereas by turning it fully counter clockwise you'll get only the signal selected by the toggle, i.e. **A**, **B** or **MAIN**. In the intermediate positions you'll get intermediate proportions. In the centre position you'll get both signals at their maximum level.



Connect your headphones to the **PHONES** outputs on the Front Panel.

NB: check your headphones have an impedance ≈32 W

Use the **PHONES LEVEL** knob to control the overall **volume** of the **headphone outputs**.



Switch ON one or more **PFL buttons**.

PFL for cueing and monitoring is a fundamental function on DJ-mixers and mainly used to work on the signal of the channels whose volume is closed, while other channels' signals are being fed out. This enables to:
Find the mixing point.
Adjust and synchronize the playback speed of turntables, CD decks, etc.
Try equalizing before mixing the signal.

For example: play the signal of CH 1 in the sound system, press the PFL button of CH 3, listen to it in your headphones, find the mixing point and at the right moment turn the CH 3's volume on and the CH 1's volume off.

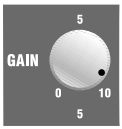
Adjusting input gain

The **PFL** is also used along with the **GAIN** when adjusting input gain.
To ensure a good sound/noise ratio, i.e. distortion-free but *present*:

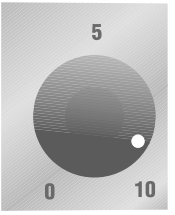
Press the channel's **PFL** button (LED illuminated).

Adjust the **GAIN**, watching the indications of the **VU meter**'s LED ladder: the level must be kept quite high, but making certain that the red LEDs don't remain continually illuminated.

Occasional illumination of the red LEDs is acceptable.



VOLUME



Volume Control.
Adjusts the output level of the channel fed to the **Zone A**, **Zone B**, **Main Outputs**.

Using the volume control, you can set the right level of the various channels in the mix.

The volume control has a curve with values between:

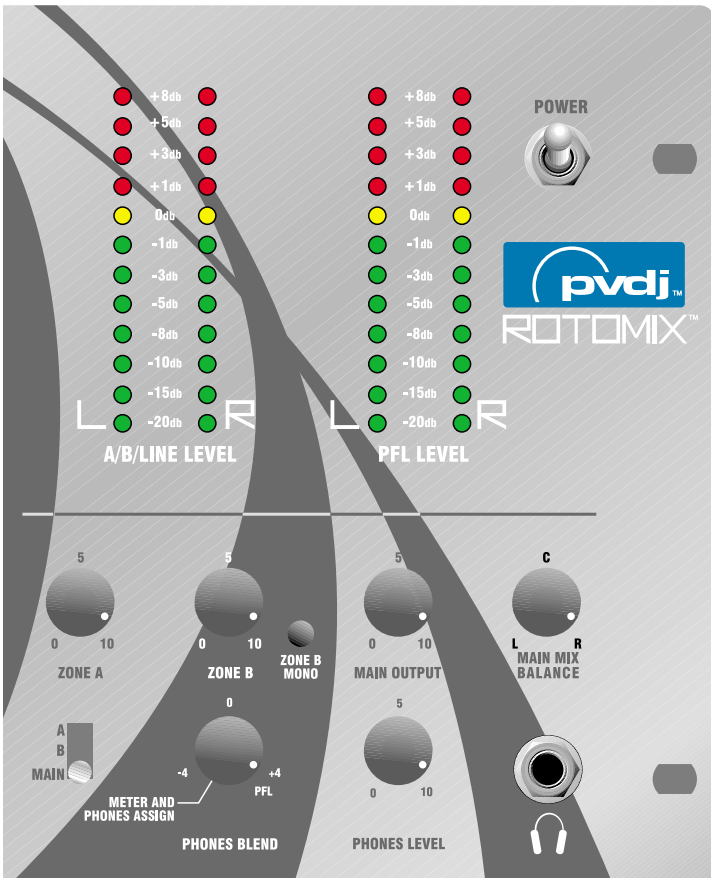
“closed” (knob fully turned counter clockwise) : no signal output.
“max” (knob fully turned clockwise) : maximum signal output.
In intermediate positions, the level has proportional values.

NB: remember that the output signal is also controlled by the **A, B, MAIN buttons**, so if no assignment has been made (all buttons up), no signal is fed out, no matter how the volume knob has been set.

3 - Master Section

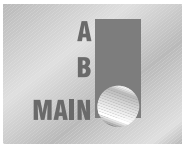
The Master section has numerous functions, controls and connection possibilities which enable the mixer to meet a wide range of application requirements:

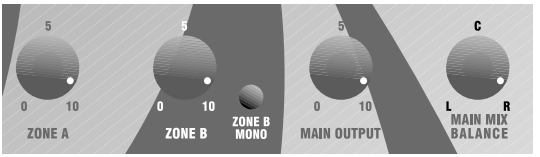
"3-Zone" structure: three separate output lines (2 stereo - 1 stereo/mono) to be used for different purposes.
3 couples of connectors for each output: 1 balanced (XLR or Jack) and 2 unbalanced (RCA phono) for a huge variety of connection sets.
2 stereo VU meter's LED ladders: 1 for A/B/MAIN and 1 for PFL Level, for a perfect and easy visualization of all the signals you need to control.
Enhanced headphone outputs: let you monitor Outputs and PFL whenever you want, as you want.



MASTERs

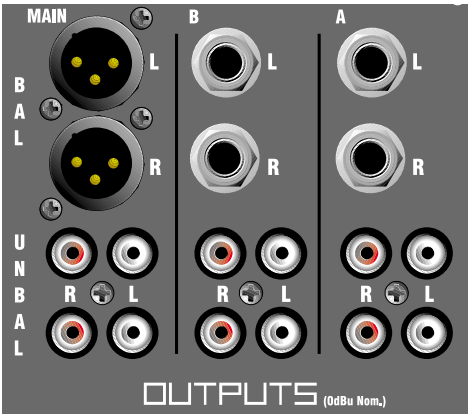
A **MASTER** (or **Zone**) groups all the signals fed from the channels (through the A - B - MAIN buttons) and controls the general volume sent to its outputs.





Rotomix is fitted with three MASTERs and relative outputs, which can be put to various uses and has numerous connections combinations to suit to your needs, mixing style and tastes.

All the sockets are located on the mixer's Connector Panel.



You can connect the MASTER outputs directly to your sound system (power amplifier, powered speaker systems, equalizer, crossover and processor inputs, etc.), larger mixers, monitors, samplers, recorders, etc.

For example, you can connect the outputs as follows:

MAIN to your main sound system.

ZONE A to your monitor speakers, used along with your headphones to facilitate cueing and mixing.

ZONE B to a second sound system (e.g. *rest are*a, *quiet zon*e, bar, etc.) or a recorder for recording the night's program.

Each output allows up to three connections simultaneously.

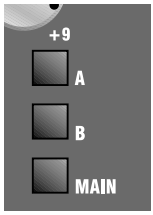
NB: if necessary, refer to the **Appendix A - Connection Examples** to find the set-up most suited to your requirements or your equipment.

The MASTER outputs are able to generate a very high level, so when using the MASTER controls be careful to avoid excessively high volumes, which risk overloading the sound system inputs.

Set the input sensitivity of the amplifiers (or the units connected to the mixer's outputs), check the overload indicators they're normally fitted with and if necessary lower the signal sent from the MASTERs.

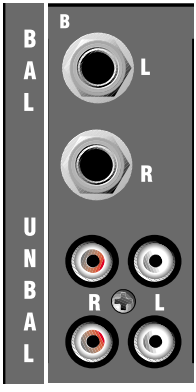
ZONE A

Groups all the signals fed from the channels through the **"A"** buttons and controls the general volume sent to its outputs.



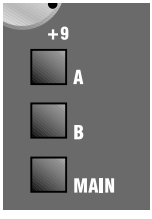
Triple stereo output

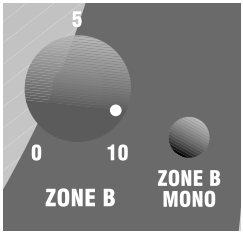
Balanced L-R output - stereo JACK
Unbalanced L-R output - RCA
Unbalanced L-R output - RCA



ZONE B

Groups all the signals fed from the channels through the **"B"** buttons and controls the general volume sent to its outputs.





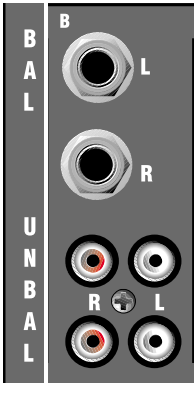
Zone B Mono

This button allows to set the Zone B Outputs as **stereo** (button up) or as **mono** (button down). In mono, both L-R output connectors have the same identical signal, no matter the source is stereo or mono.

N.B.: this function is useful in several applications: DJ monitoring, amplifications in wide public address areas, announcement or communications systems, mono sound systems, ... and, in general, anywhere mono is preferable to stereo for a better intelligibility - i.e. conference rooms, and so on.

Triple stereo/mono output

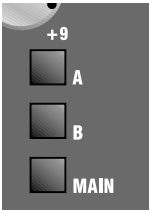
Balanced L-R output - stereo JACK
Unbalanced L-R output - RCA
Unbalanced L-R output - RCA

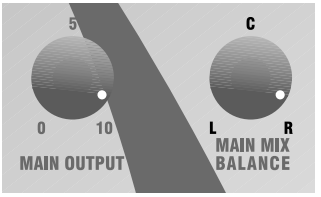


MAIN

Main Output

Groups all the signals fed from the channels through **"MAIN"** buttons and controls the general volume sent to its outputs.



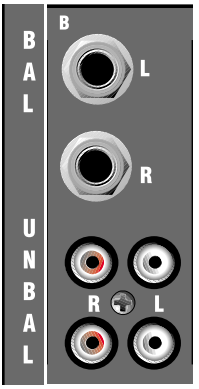


Main Balance

Turning this potentiometer to the right (clockwise), the signal of the Right MAIN Outputs remains unchanged, whereas the signal of the Left MAIN Outputs is gradually reduced until it's completely annulled (position "R").
Vice versa, by turning this potentiometer to the left (counter clockwise), the signal of the Left MAIN Outputs remains unchanged, whereas the signal of the Right MAIN Outputs is gradually reduced until it's completely annulled (position "L").
The potentiometer is centre-dented (position "0"), allowing to easily find the point in which the signal of both MAIN Outputs remains unvaried.

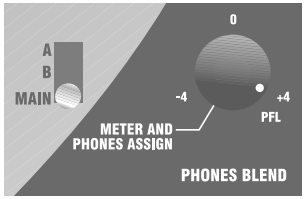
Triple stereo output

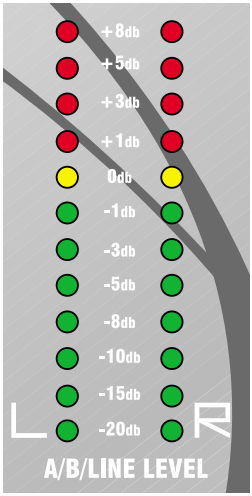
Balanced L-R output - XLR-M
Unbalanced L-R output - RCA
Unbalanced L-R output - RCA



METER & PHONES ASSIGN

Allows to select the output signal you want to monitor in the **VU Meter** and in your **headphones**.

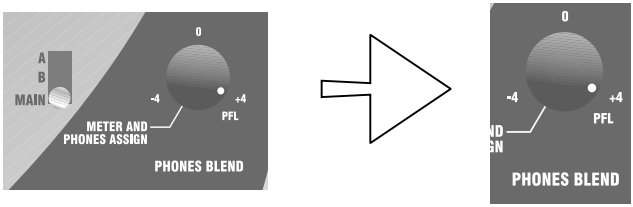




In fact, by setting this toggle you can assign the **Zone A** or the **Zone B** or the **Main Outputs**' signal to the following instruments:

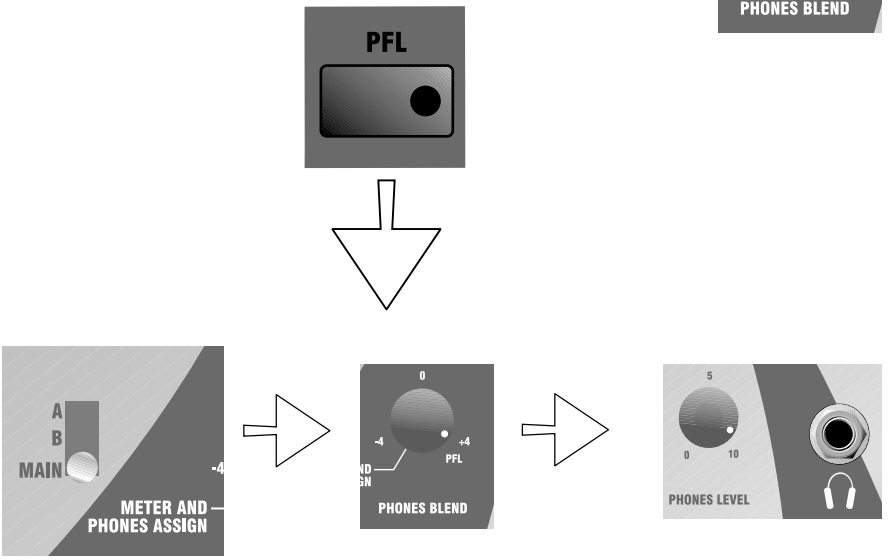
to the **A/B/MAIN LEVEL VU Meter**
(by means of which you can display the output signal you set).

to the **PHONES BLEND** knob
(by means of which you can mix the output signal you set with the **PFL** signal in your headphones).



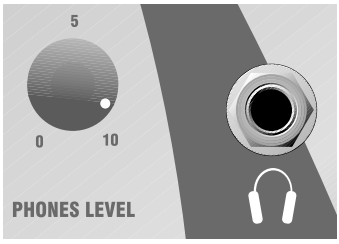
PHONES BLEND

Allows to adjust the proportion between the output signal set by the **Meter and Phones Assign** toggle and the **PFL** signal in your headphones.



Turning this potentiometer to the right (clockwise), the level of the **PFL** remains unchanged, whereas the level of the outputs set by the **Meter and Phones Assign** toggle is gradually reduced until it's completely annulled (position "PFL"). Vice versa, by turning this potentiometer to the left (counter clockwise), the level of the outputs set by the **Meter and Phones Assign** toggle remains unchanged, whereas the level of the **PFL** is gradually reduced until it's completely annulled.
The potentiometer is centre-dented (position "0"), allowing to easily find the point in which both signal levels remain unvaried.

PHONES



Phones Level

This knob allows to control the overall **volume** of the **Phones Outputs**.

Phones Output

Stereo JACK Output - 1 Watt ≈32Ω

Allows to monitor in your headphones the signal set by the **Phones Blend** control - i.e. the signal fed by the **Meter and Phones Assign** toggle and by the channels with their **PFL** switched on (leds on).

Rotomix is equipped with particularly powerful headphone outputs with very wide frequency and dynamic response, made for pro quality headphones. Before connecting your headphones, make certain they're compatible as far as power (1 Watt) and impedance (32 Ohms or more) are concerned.

Headphones are indispensable for all DJs, as well as for all mixer users. In fact, used along with the **PFL** (Pre-Fader Level) function, headphones allow you to listen to the signal of the individual channels to be monitored in your headphones before it's controlled by the relative **VOLUME** controls.

It's thus possible to work on the signal of channels whose volume is turned down, even while other channels' signals are being played through the sound system. In fact, by using your headphones and monitor speakers (or the sound system) you can find the mixing point; adjust and synchronize the playback speed of turntables, CD decks, etc.; try equalizing before mixing the signal; and so on.

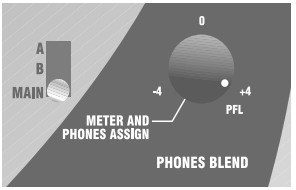
For example:
Assign **CH 1** and **CH 2** to **MAIN**.
Turn up the volume of the **CH 1** and turn completely down the volume of the **CH 2:** the main sound system **(MASTER 1**) *will play* the **CH 1** signal.
Set the **Meter & Phones Assign** toggle to **MAIN.**
Switch on the **CH 2 PFL** and monitor the signal in your **headphones**.
Use the **Phone Blend** knob to adjust the proportion between **MAIN** and **PFL** in your **headphones**.
If necessary, equalize the CH 2's signal; match the speed of track with that of the track actually playing, using the relative turntable or CD deck controls; find the mix point.
At the appropriate moment, turn up the volume of the **CH 2** and turn completely down the volume of the **CH 1:** the main sound system will play the **CH 2** signal.

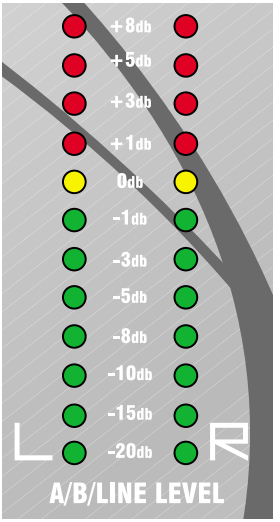
A this point you can:
Switch off **CH 2's PFL** and switch on **CH 1**'s.
Change the record on **CH 1.**
Repeat the procedure in the same way.

A/B/MAIN LEVEL

Outputs VU Meters.
Displays the signal's level of the outputs set by the **Meter and Phones Assign** toggle.

Watch the **VU Meter** as you adjust the **Zone A**, **Zone B** and **Main Outputs** volume knobs: for high distortion-free volume, make certain the red LEDs don't light up continually.
Occasional illumination of the red LEDs is acceptable.



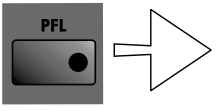


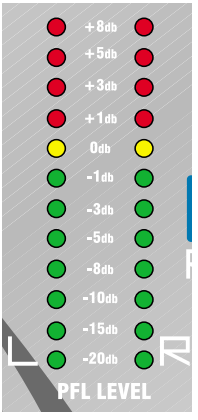
Remember that excessively high volumes may jeopardize sound quality, overload the inputs of the units connected to the mixer's outputs (amplifiers, etc.) and even damage loudspeaker enclosure components.

PFL LEVEL

PFL VU Meters.
Displays the PFL signal of the channels selected using the **PFL** button (LED on).

Use the **VU Meter** along with the **PFL** and **GAIN** to set the input gain.
To obtain a "present" distortion-free sound:
Press the channel's **PFL** button (LED illuminated).
Adjust the **GAIN**, watching the **VU Meter**'s LED ladders: the level must be kept quite high, but making certain that the red LEDs don't light up continually.
Occasional illumination of the red LEDs is acceptable.

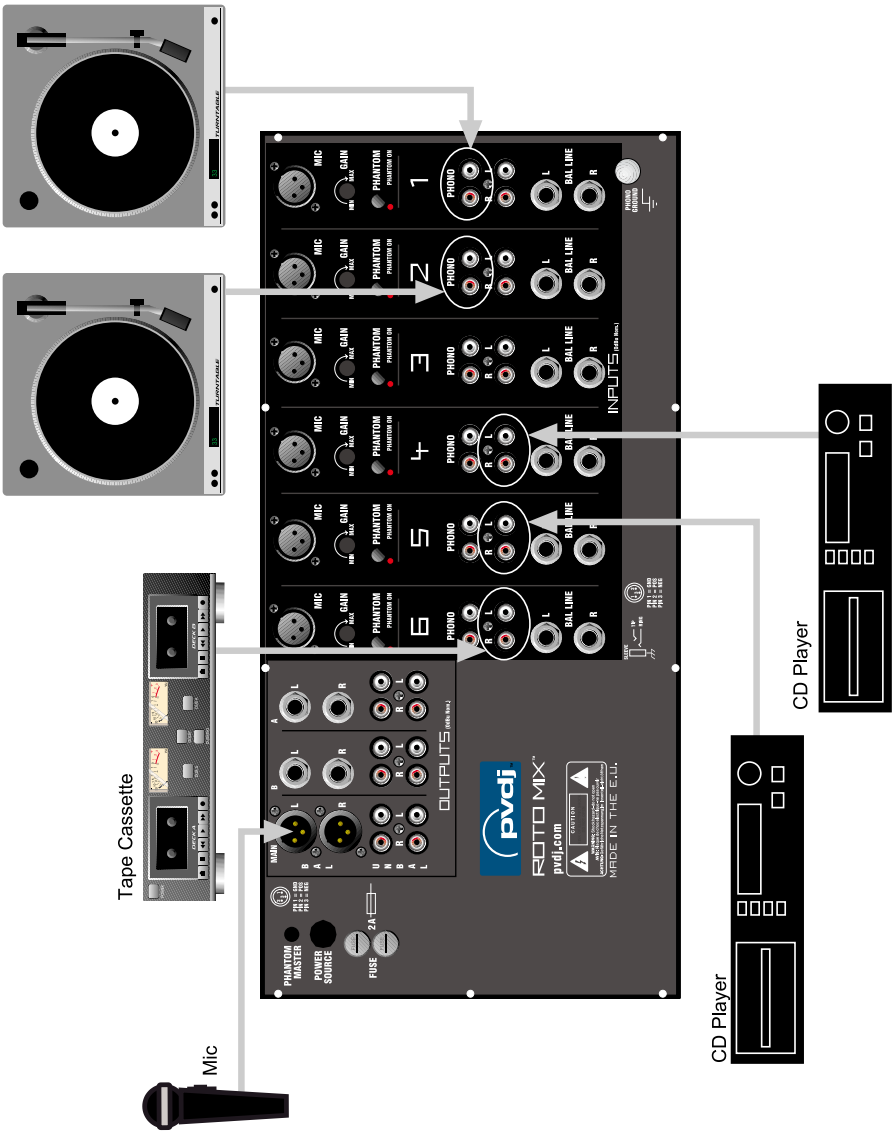




NB: if no PFL button is pressed, no signal will be displayed.

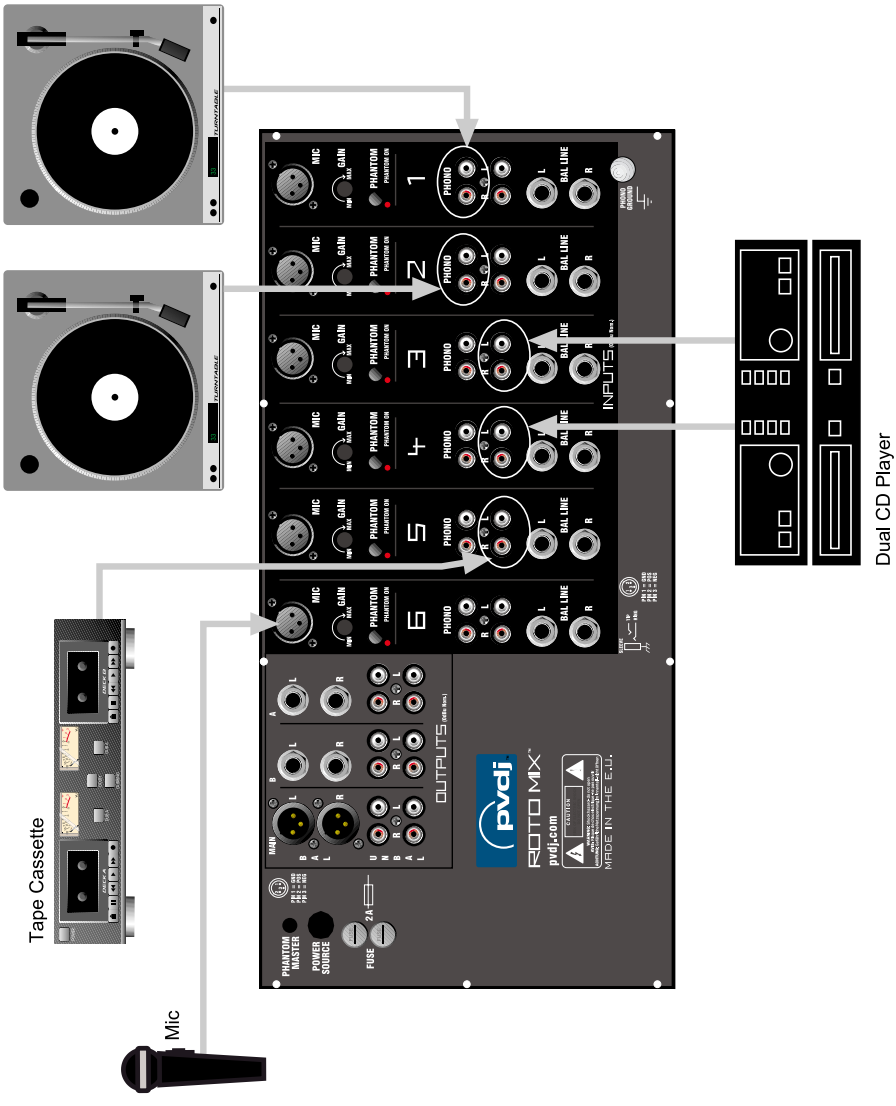
Connection Examples

INPUTS - Basic

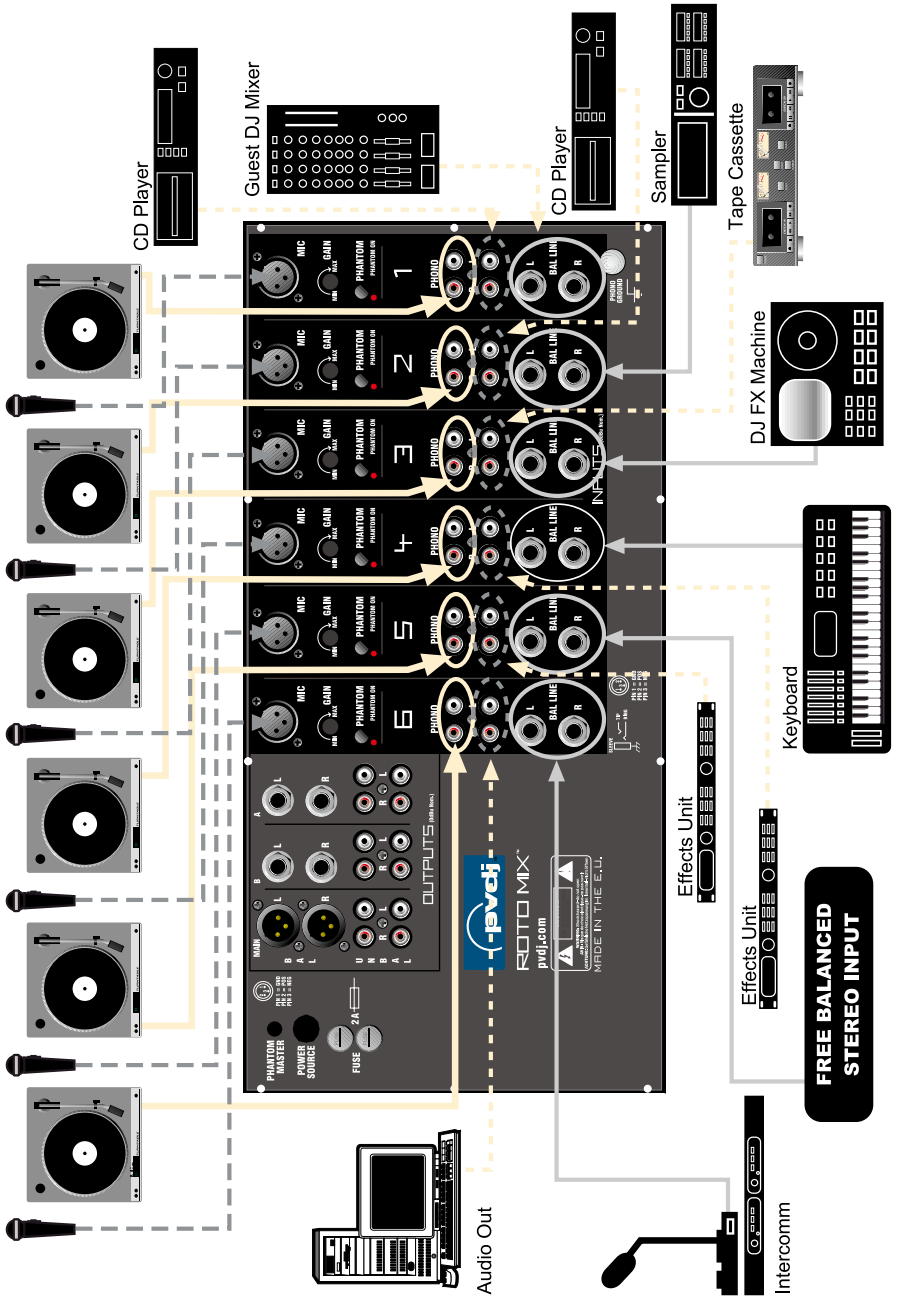


A

INPUTS - Basic with Dual CD player

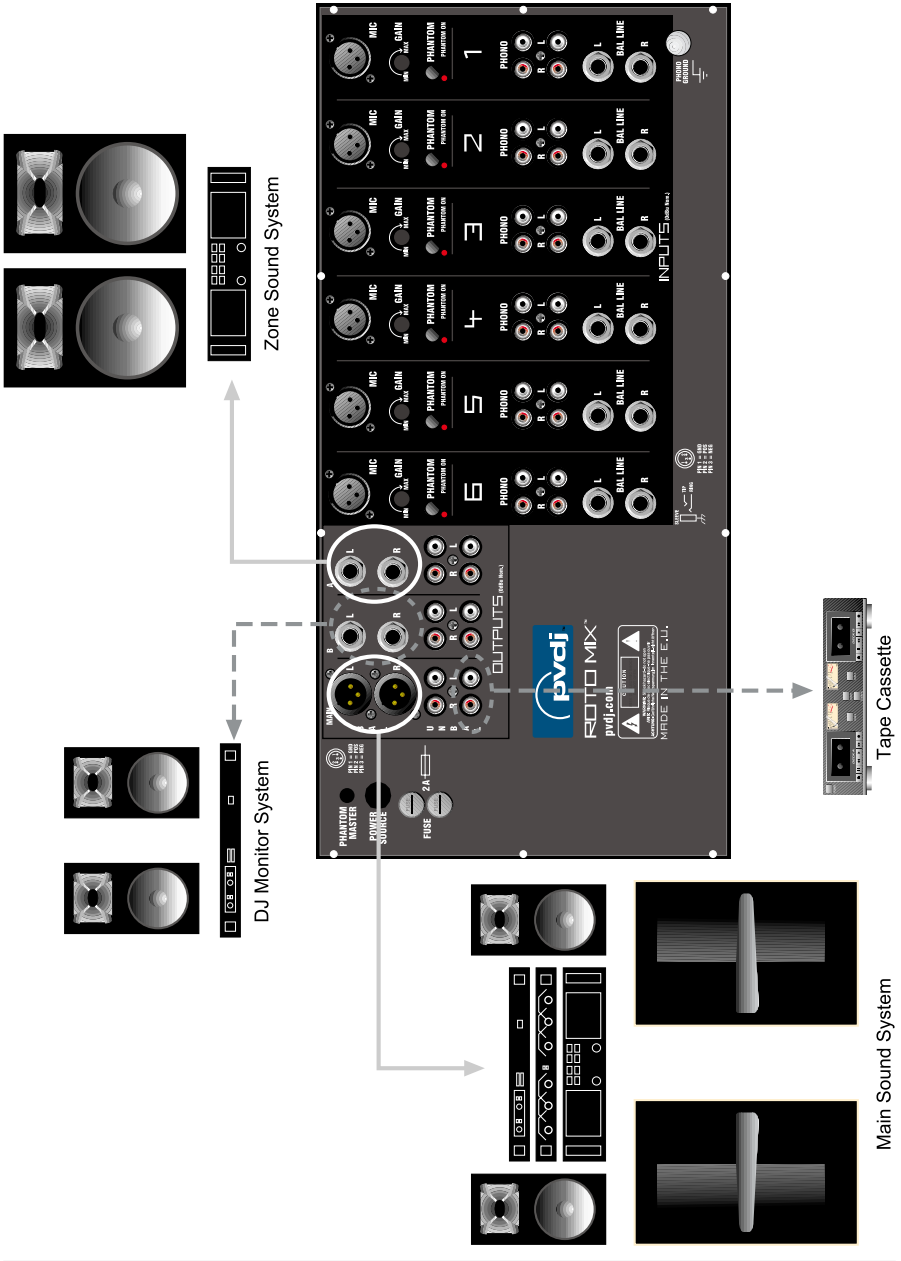


INPUTS - Total Connection

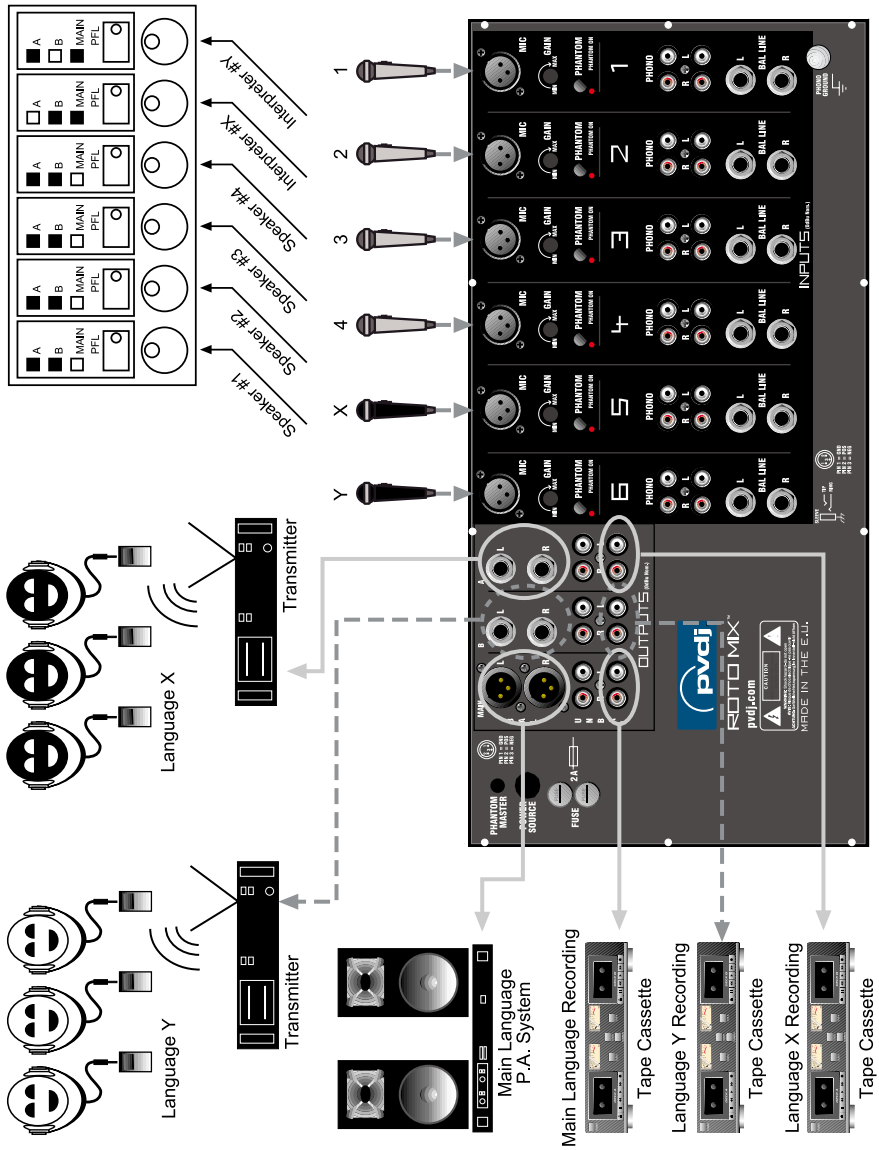


A

OUTPUTS - 3 Zones + Tape Recorder

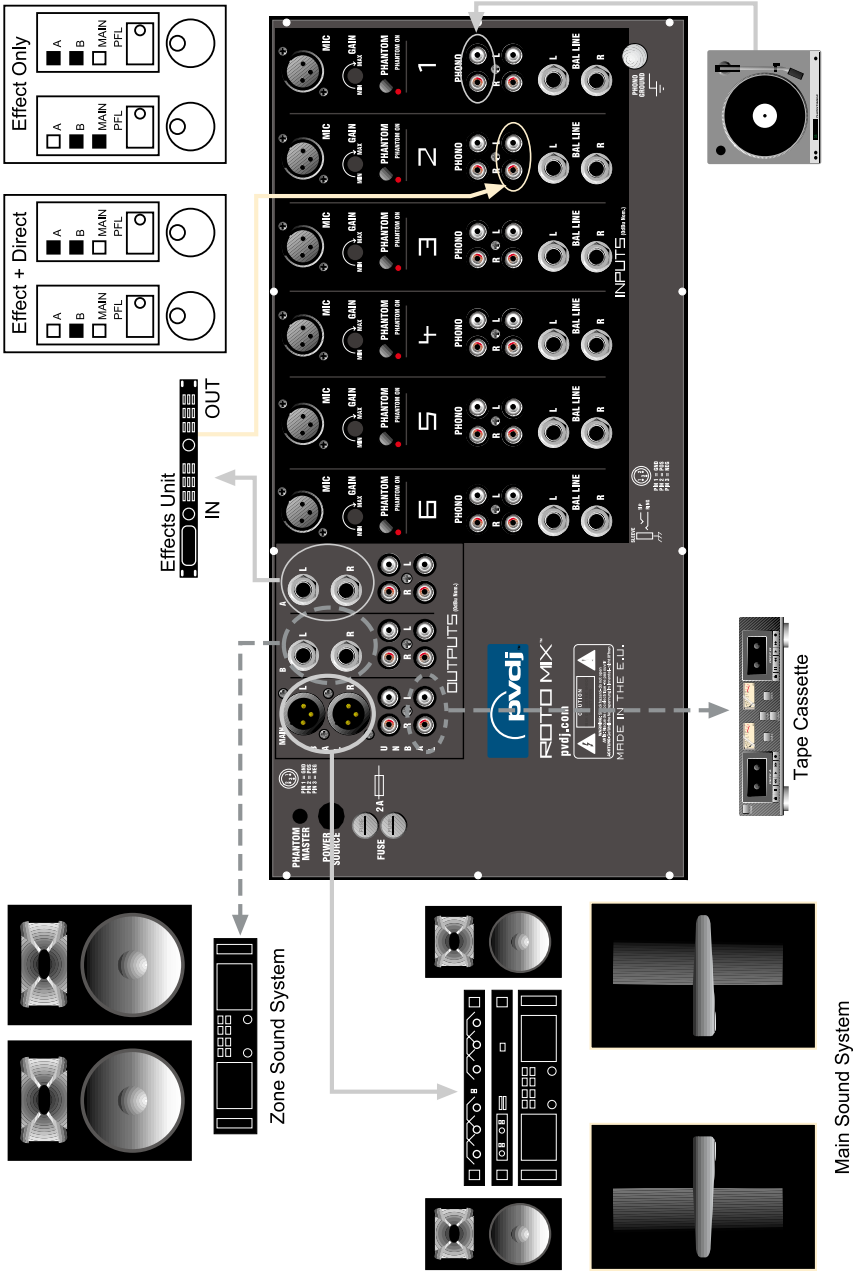


CONFERENCE



A

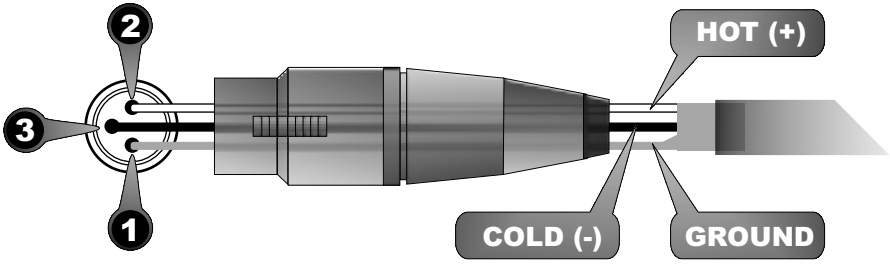
EFX Send & Return



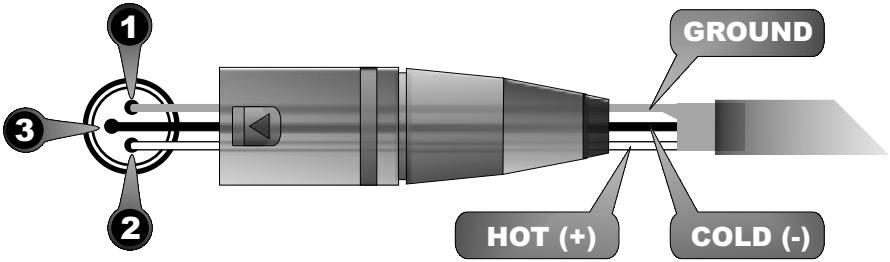
Connection Cables

This appendix shows the recommended cables and connectors and their wiring schemes.

balanced - XLR-F

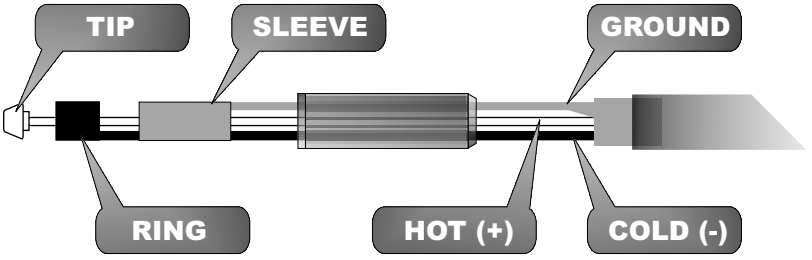


balanced - XLR-M

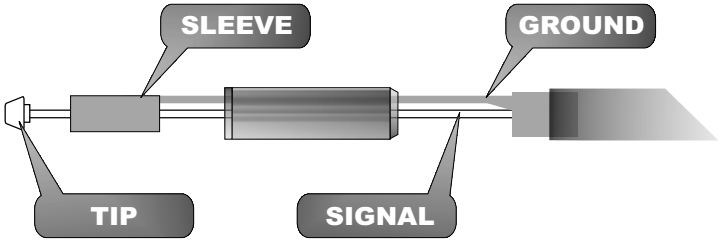


B

balanced - JACK



unbalanced - RCA phono



Technical Specifications

Rotomix

INPUT CHANNELS	Sockets	Sensitivity	Impedance
PHONO Input	2 Unbalanced RCA	-50 ÷ -20 dB	47 kΩ
LINE Input	2 Unbalanced RCA	-20 ÷ +10 dB	47 kΩ
BAL LINE Input	2 Balanced JACK	-20 ÷ +10 dB	47 kΩ
MIC Input	1 Balanced XLR-F	-55 ÷ -25 dB	1 kΩ
EQ	3-band		
HIGH	Shelving	10 kHz	-24 ÷ +9 dB
MID	Peaking	900 Hz	-24 ÷ +9 dB
LOW	Shelving	70 Hz	-24 ÷ +12 dB

OUTPUTS	Sockets	Nominal Lev.	Max Out Level
Main	2 Balanced XLR-M	+4dB	+20dB
	2+2 Unbalanced RCA	0dB	+14dB
Zone A	2 Balanced JACK	+4dB	+20dB
	2+2 Unbalanced RCA	0dB	+14dB
Zone B	2 Balanced JACK	+4dB	+20dB
	2+2 Unbalanced RCA	0dB	+14dB
Phones	1 Stereo JACK	1 Watt ≥32 Ω	

GENERAL Specs	
Frequency Response	20 Hz ÷ 20 kHz ± 0,1 dB
Distortion (THD + noise)	<0,01% 20 Hz ÷ 20 kHz
Noise (all fader closed)	-90 dB

Dimensions & Weight		
Dimensions W x H x D	483 x 221 x 80 mm	19.0 x 8.7 x 3.1 in.
Gross Weight	3.5 kg	7,6 lbs.

C